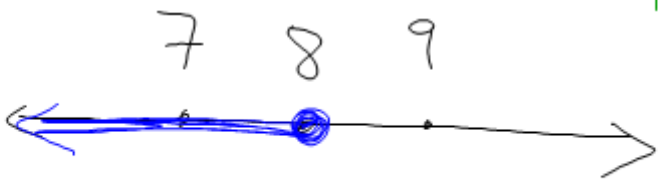
(7) $4(x+3) \leq 44$; $x \leq 8$

$4x + 12 \leq 44$

$-12 \quad -12$

$\frac{4x}{4} \leq \frac{32}{4}$

$x \leq 8$



Compound Inequalities

Ex $3x-1>-28$ and $2x+7<19$

Solve and Graph

$x>-9$ and $x<6$

$-9<x<6$

Solve & Graph

Ex $4y - 2 \geq 14$ or $3y - 4 \leq -13$

$y \geq 4$ or $y \leq -3$

Absolute Values

$|6| = 6 \qquad |-6| = 6$

$\rightarrow \quad |x| = 5$

$x = 5 \qquad x = -5$

Ex

$$|2y-4| = 12$$

$$2y-4=12 \qquad 2y-4=-12$$

$$y = 8, -4$$

Ex

solve

$$|2x+5| = 3x+4$$

$$2x+5 = 3x+4 \qquad 2x+5 = -(3x+4)$$

$$x = 1 \qquad x = -\frac{9}{5}$$

$x=1$, $x=-\frac{9}{5}$ is an extraneous solution

$$\left|\frac{-18}{5}+5\right| = -\frac{27}{5}+4$$

$$1.4 = -5.4$$

$$-1.4$$

EX $|3x+6| \geq 12$

$3x+6 \geq 12$ $\qquad$ $3x+6 \leq -12$

solve & graph

$x \geq 2$ OR $x \leq -6$

HW: p. 29, section 1.4: 17-21 (odd), 48, 49

p. 36, section 1.5: 1-5, 10-12, 19, 25, 26